

# **EXHIBIT E**

**Post November 9, 2000 Information  
From US Wireless Corporation**

## **EXHIBIT E. 1.**

**May 14, 2001 US Wireless Letter to Nextel in Response  
To Bureau's May 10, 2001 Order Requiring Nextel to Provide  
Additional Information**



May 14, 2001

Messrs:

Tom Kelly

Executive Vice-President and Chief Marketing and Strategy Officer

Bob Foosaner

Senior Vice President and Chief Regulatory Officer

Nextel Communications

2001 Edmund Halley Drive

Reston, VA 20191

Dear Tom and Bob:

We understand the FCC has requested that Nextel Communications and AT&T provide their E911 Phase II test results in support of filings stating that no compliant location solution exists, as well as address the impact on Phase II E911 of Nextel's migration to CDMA. U.S. Wireless would like to take this opportunity to assist you in this process and to provide Nextel with an update on the status of the RadioCamera™ Wireless Location Platform and the performance results of our most recent set of monitored tests.

First, I would like to explain several elements that affected our performance during testing with Nextel last June and report the system modifications made in the past year to eliminate their effects. The five major factors causing U.S. Wireless' Location Platform to perform below its potential are listed below:

- We had not yet incorporated the use of serving cell-sector information to task an appropriate set of RadioCamera™ neighbors. This implementation resulted in a susceptibility to co-channel interference from mobiles not immediately of interest;
- Our procedures at the time sampled approximately one third of the available signal for calibration resulting in insufficient density of the calibration tables;
- We did not adequately compensate for DTX effects which resulted in our receiving fewer data samples than our design objective for accurate position determination;
- Our implementation of a microwave back-haul network resulted in delays in detecting and notifying RadioCameras™ that a mobile had handed-off to a different frequency causing the network to track bursts of noise following each hand-off;
- We used a boresight correction based on interpolation between 5 calibration frequencies. Variability in the Low Noise Amplifiers resulted in substantial errors for frequencies between calibration points.

Despite these effects, TechnoCom, who carried out the Trials on behalf of Nextel, expressed confidence to us, and we believe to you, that our system was capable of meeting the FCC requirements based on that test.

The following actions have been taken in the past several months to enhance the performance and operation of our technology:

- We now use neighbor lists to task a subset of RadioCamera™ base units in the vicinity of the serving cell, rather than tasking all RadioCameras™;
- We have implemented new calibration procedures to increase the density of the calibration tables for time-division-multiplexed, digital air interfaces (i.e. iDEN, IS-136 and GSM) by a factor of three to four;
- We have increased the sampling window during transmissions to increase sample density by a factor of six;
- We have redesigned the back-haul network to vastly reduce the delay in retuning RadioCameras™ following a hand-off;
- We have both improved the characteristics of the LNAs, and increased the number of boresight calibration frequencies, to minimize the variation from one frequency to the next.

iDEN? { Since testing with Nextel, U.S. Wireless has deployed two markets, Seattle, WA and Washington, D.C.'s Southern Beltway, with the above system improvements. Testing monitored by the National Emergency Number Association (NENA) in the Seattle network demonstrated "FCC compliance" as stated by members of NENA. The Executive Summary of the report for this technology audit is included as a comprehensive overview of the accuracy results and test plan. A copy of the entire report will be provided in a subsequent message.

We sincerely believe that a Network based solution either stand alone or in conjunction with AGPS handsets could be a cost effective way to achieve E911 compliance and build substantial location based applications for end users on both your current iDEN and future 3G Networks. We would very much appreciate the opportunity to show how this could work either for Nextel on its own or in conjunction with other operators to provide an industry solution.

In any event, as Nextel prepares to respond to the FCC's request, please, notify us if there is any additional information we could provide you with respect to system enhancements made during the last year and/or current accuracy results.

As always, we remain ready to meet with or assist you in any way possible in addressing this important industry issue.

Sincerely,

Dale E. Stone  
President and COO



May 14, 2001

Messrs:

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Executive Vice-President and Chief Marketing and Strategy Officer

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U.S. Wireless Corporation  
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As always, we remain ready to meet with or assist you in any way possible in addressing this important industry issue.

Sincerely,

Dale E. Stone  
President and COO

## **EXHIBIT E. 2.**

### **Executive Summary of "US Wireless, USWC Radiocamera™ Seattle Field Trial: Performance Results"**



## **USWC RadioCamera™ Seattle Field Trial: Performance Results**

***Testing Monitored by NENA***

**Document:** 120 001 015

**Revision:** E013

**Eff Date:** 2001-04-05



## EXECUTIVE SUMMARY

A nine-day trial of the US Wireless Corporation RadioCamera™ network was conducted in Seattle, WA during the period 06-16 March 2001. The objective of the field trial was to evaluate the performance of the RadioCamera™ Wireless Location Platform and to assess the suitability of the system in meeting the E9-1-1 location requirements as established by the FCC Report and Order 94-102. The trial procedures and performance analysis were monitored by NENA<sup>1</sup>.

The test region included a 2 square mile area that encompassed downtown Seattle and the surrounding area. The US Wireless Location Platform under test included 14 RadioCamera™ sites deployed as an independent network overlay (no integration with any carrier network was required). Testing was performed using digital handsets. Over 1,400 test calls and 16,000 locations fixes were evaluated for 9 mobile test routes and 18 fixed test points, encompassing a wide variety of operating environments.

Test results concluded that the US Wireless Location Platform was able to meet FCC performance requirements with

- 67% of location fixes within 61 meters of the actual caller location,
- 95% of location fixes within 295 meters of the actual caller location.

To facilitate testing, a US Wireless Mobile Test Unit was used to establish digital test calls, measure and report call events (initiations, handoffs, etc.) and measure ground truth location measurements using GPS technology augmented with a dead-reckoning system. The Mobile Test Unit was comprised of the following equipment: SAFCO WalkAbout Unit, commercial digital handset, synchronization unit, CDMA handset (used as a wireless data link to the Hub), GPS unit and a drive test vehicle equipped with a dead-reckoning system.

A set of 9 mobile test routes and 18 stationary test points was defined for the test region. The test cases were designed to provide a representative set of test points and routes throughout the test region and included both on-road and off-road testing. The 9 mobile routes provided comprehensive coverage of the test area: 7 routes were selected as regional tests (confined to specific areas within the test region), the 8<sup>th</sup> route was defined as a freeway route and the 9<sup>th</sup> route was selected in a random fashion throughout the test region.

All test calls were 30 seconds in length with 15 seconds between consecutive test calls. At each stationary test point, approximately 40 test calls were placed. For each mobile test route, approximately 100 test calls were placed during each route, except for the two routes in the same geographical area in which ~50 calls were placed for each. The RadioCamera™ system was configured to produce a location estimate every 3 seconds throughout a test call. During testing two sets of data files were collected and stored: RadioCamera™ Hub Playback files containing a record of the RadioCamera™ location measurements produced in real-time and Mobile Test Unit files including the GPS / dead-reckoning log files where the ground truth measurements were recorded.

Accuracy performance was computed by comparing the RadioCamera™ location measurements with “ground truth” measurements made by the Mobile Test Unit. Performance was

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<sup>1</sup> National Emergency Number Association

characterized in terms of the FCC performance metrics of 67<sup>th</sup> and 95<sup>th</sup> percentiles. The following 3 cases were evaluated for each mobile route and test point:

- *All Fixes*: accuracy for all location fixes, 100% yield where no fixes are discarded, regardless of fix or call quality, ~10 fixes / call (one fix every 3 seconds, for each 30-second call);
- *First Fix*: accuracy for the first fix of each call, 1 fix / call, reported within ~3.2 seconds, indicative of call routing accuracy;
- *Best Fix*: accuracy for the highest quality fix during each call, 1 fix / call, chosen as the fix with the highest associated quality factor, reported within 30 seconds as per the FCC recommendations.

The overall system performance for the combined 9 mobile test routes and the 18 stationary test points with a distribution of roughly 50% mobile and 50% stationary test calls is provided in Table 1.

Table 1: Overall Performance Summary for all stationary and mobile test cases.

	# of Calls	# of Fixes	m@67%	m@95%	%<100m	%<300m
<b>Best Fix</b>	1481	1481	61m	295m	81%	95%
<b>First Fix</b>	1481	1481	60m	364m	79%	94%
<b>All Fixes</b>	1481	16066	62m	348m	81%	94%

Based upon FCC recommendation for best fix accuracy within 30 seconds, the US Wireless Location Platform was determined to be FCC Compliant for a network-based solution.

- 81.2% within 100 m (67% of fixes are within 61 meters of the caller location)
- 95.3% within 300 m (95% of fixes are within 295 meters of the caller location)

The US Wireless Location Platform was also seen to be close to meeting the FCC's standard for handset-based solutions:

- 60.5% of calls within 50 m of the caller location;
- 89.7% of calls within 150 m of the caller location.